

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017839**Date Inspected:** 07-Nov-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Segments**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

OBG Trial Assembly Yard

Segment 11DW/11EW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBW11C-008, Bottom Plate transverse splice. The welder is identified as #040656 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SP785-001-010, Side Plate WT stiffener web splice. The welder is identified as #057333 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-P-2213-B-U2-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBW11A-006, Edge Plate transverse splice. The welder is

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identified as #040611 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated OBW11A-010, Edge Plate transverse splice. The welder is identified as #044551 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-B-U2-FCM-1.

### Segment 11CW/11DW

This QA Inspector observed Base Metal Repair using the Shielded Metal Arc Welding (SMAW) process at locations of removed fit up plates along the exterior of Side Plate transverse CJP splice. The welder is identified as #062935 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-345-SMAW-4G (4F)-FCM-repair-1 for CWR1842.

### Segment 11DE/11EE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SP383-001-048, Side Plate WT stiffener web splice. The welder is identified as #040484 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-P-2213-B-U2-FCM-1.

### Segment 11DE

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated BP081-001-047, Bottom Plate WT stiffener hold back weld. The welder is identified as #040533 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated BP189-001-008, Bottom Plate WT stiffener hold back weld. The welder is identified as #040367 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132.

### Segment 11EE

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated BP190-001-050, Bottom Plate WT stiffener hold back weld. The welder is identified as #040533 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132.

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated BP082-001-005, Bottom Plate WT stiffener hold back weld. The welder is identified as #040367 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification

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WPS-B-T-2132.

### Segment 11CE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated CA088-002, Edge Plate to Deck Plate hold back weld. The welder is identified as #040320 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

### Segment 11DE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated CA090-006, Edge Plate to Deck Plate hold back weld. The welder is identified as #040320 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

### Segment 11CE/11DE

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated SP355-001-048, Side Plate WT stiffener web splice. The welder is identified as #047353 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-P-2213-B-U2-FCM-1.

For the above mentioned welding activities ZPMC Quality Control (QC) Inspectors are identified as An Qing Xiang and Zhou Yuan Yuan. The welding variables recorded by QC appeared to comply with the Applicable WPS.

### Segment 11EW

This QA Inspector observed fit up of the Light Bracket to the Deck and Edge Plate.

### Segment 11CW

This QA Inspector observed the fit up of the top Counter Weight connection plate at panel points 101-102.

### Segment 11CE/11DE

This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the excavations along the Side Plate transverse CJP splice at locations of removed fit up plate in preparation for base metal repair, bike path side

### Segment 11AW

This QA Inspector observed grinding on the beveled edge of the Deck Plate I-ribs, counter weight side at the west

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end at the field splice location.

Cross Beam 13

This QA Inspector observed CB13 being loaded on the transport ship by barge crane.

Segment 11BE

This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the Edge Plate to Deck Plate hold back weld, cross beam side.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



### Summary of Conversations:

No relevant conversations.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372 , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Hernandez,Dan	Quality Assurance Inspector
<b>Reviewed By:</b>	Dsouza,Christopher	QA Reviewer

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